(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date23 December 2004 (23.12.2004)

PCT

(10) International Publication Number WO 2004/111259 A3

(51) International Patent Classification⁷: G01N 33/533, 33/53, C07K 17/06

(21) International Application Number:

PCT/US2004/018524

(22) International Filing Date: 10 June 2004 (10.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/320,262

12 June 2003 (12.06.2003) US

(71) Applicant (for all designated States except US): PERKINELMER LAS, INC. [US/US]; 549 Albany Street, Boston, MA 02118 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): BOBROW, Mark [US/US]; 11 Battle Green Road, Lexington, MA 02421 (US).

(74) Agent: CITKOWSKI, Ronald, W.; Gifford, Krass, Groh, Sprinkle, Anderson & Citkowski, P.C., Ste 400, 280 N. Old Woodward Avenue, Birmingham, MI 48009 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

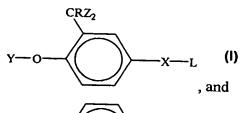
with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 24 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HYDROLYTIC SUBSTRATES FOR AN ANALYTE-DEPENDENT ENZYME ACTIVATION SYSTEM



$$Y-O-C$$
 X L (II)

(57) Abstract: Disclosed are compounds of the general formulas: (I), and (II) wherein Y is a moiety capable of being cleaved by a hydrolytic enzyme; L is a detectable label; X is a linking group; Z is a halogen; and R is hydrogen, an alkyl, or a halogen. Compounds of this general formula can be used as substrates in an analyte-dependent enzyme activation system, such as that employed in connection with catalyzed reporter depositions. Also disclosed are assays using the compounds, and kits for carrying out the assays.